

IN THE CLAIMS

1. (Original) A thermoplastic polyolefin alloy having high (notched) Izod impact strength comprising a polypropylene block copolymer as a base polymer, an elastomer and a compatibilizer.
2. (Original) Polyolefin alloys as claimed in claim 1, exhibiting izod impact strength in the range : 60-90 kg. cm/cm, for notched specimens of thickness 3.2 mm, following the ASTM D256 test method using injection molded standard specimens.
3. (Currently Amended) Polyolefin alloy as claimed in claim 1 [[and 2]], wherein said polypropylene block copolymer is a block copolymer of propylene and ethylene.
4. (Currently Amended) Polyolefin alloy as claimed in ~~any preceding~~ claim 1, wherein said elastomer is selected from a terpolymer made from ethylene propylene diene monomer(EPDM)/an ethylene propylene copolymer rubber (EPR).
5. (Currently Amended) Polyolefin alloy as claimed in ~~any preceding~~ claim 1, wherein said compatibilizer is selected from a group of two different ionomers, styrene-ethylene/butylene-styrene block copolymer (SEBS),styrene-acrylonitrile copolymer (SAN) and polypropylene block copolymer grafted with maleic anhydride (PPBC-g-MAH).
6. (Currently Amended) Polyolefin alloy as claimed in ~~any preceding~~ claim 1, wherein said polypropylene block copolymer is present in an amount of 50 to 95 wt % of said alloy.
7. (Currently Amended) Polyolefin alloy as claimed in ~~any preceding~~ claim 1, wherein

said elastomer is present in a concentration range of 5 to 50 wt %.

8. (Currently Amended) Polyolefin alloy as claimed in ~~any preceding~~ claim 1, wherein said compatibilizer is present in an amount of from 5 to 30 wt %.

9. (Currently Amended) Polyolefin alloy as claimed in ~~any preceding~~ claim 1, further including a natural filler.

10. (Original) Polyolefin alloy as claimed in claim 9 wherein said filler is selected from the group consisting of mica, talc and calcium carbonate.

11. (Currently Amended) Polyolefin alloy as claimed in claim 9 [[or 10]], wherein said filler is present in the concentration range of from 0-10 wt%.

12. (Original) A thermoplastic polyolefin alloy having high (notched) Izod impact strength comprising a base polymer selected from a block copolymer of propylene and ethylene (PPBC) in the concentration range of 50 to 59wt%; an elastomer comprising, a terpolymer made from ethylene propylene diene monomer (EPDM)/an ethylene propylene copolymer rubber (EPR) in the concentration range of 5-50 wt%; a compatibilizer selected from the group consisting of two different ionmers, styrene-ethylene/butylenes-styrene block copolymer (SEBS), styrene-acrylonitrile copolymer (SAN) and polypropylene block copolymer grafted with maleic anhydride (PPBC-g-MAH) in a concentration range of 5 to 30 wt% and natural filler selected from a group consisting of mica, talc and calcium carbonate in the concentration range of 0 to 10 wt%.

13. (Original) Polyolefin alloy as claimed in claim 12, when heated in differential,

scanning calorimeter at a uniform heating rate of 10°C/min. in nitrogen environment, exhibit 2 to 3 endothermic peaks in the range: 90-167°C.

14. (Original) Polyolefin alloy as claimed in claim 12, having exothermic major peak in the temperature range of 115-25°C followed by a minor peak in the range of 113 to 125°C with total ΔH value in the range: 55 of 75 J/g, when heated in differential scanning calorimeter at a uniform heating rate of 10°C/min, in nitrogen environment, up to 200°C and cooled after holding isothermally for 3 min.

15. (Original) Polyolefin alloy as claimed in claim 12, having melt flow indices in the range: 2-5 g/10 min. when tested according to ASTM D1238 standard method using dried granules.

16. (Original) Polyolefin alloy as claimed in claim 12, having tensile strength in the range of 150 to 200 kg/cm² when tested according to ASTM D638, using injection molded test specimens.

17. (Original) Polyolefin alloy as claimed in claim 12, exhibiting tensile modulus in the range of 7,000 to 8,000 kg/cm², when tested according to ASTM D638, using injection molded test specimens.

18. (Original) Polyolefin alloy as claimed in claim 12, exhibiting flexural strength in the range of 160 to 200 kg/cm², when tested according to ASTM D790, using injection molded specimens.

19. (Original) Polyolefin alloy as claimed in claim 12, having flexural modules in the

range of 6,000 to 8,000 kg/cm², when tested according to ASTM D790, using injection molded specimens.

20. (Original) Polyolefin alloy as claimed in claim 12, having heat deflection temperature in the range of 60-70°C with 4.6 lcgf stress when tested according to ASTM D648, using injection molded test specimens.

21. (Original) Polyolefin alloy as claimed in claim 12, exhibiting heat deflection temperature in the range: 45-55°C with 18.2 kgf stress when tested according to ASTM D648, using injection molded test specimens.

22. (Original) A process for the preparation of a thermoplastic polyolefin alloy having high (notched) Izod impact strength which comprises melt blending a polypropylene block copolymer, a terpolymer and a compatibilizer, with or without a natural filler.

23. (Original) A process as claimed in claim 22, wherein said melt blending is carried out in in a twin screw extruder or a Buss-co-kneader.

24. (Original) A process as claimed in claim 22, wherein said polypropylene block copolymer is a block copolymer of propylene and ethylene.

25. (Currently Amended) A process as claimed in ~~any one of claim~~[[s]] 22 ~~to 24~~, wherein said elastomer is selected from a terpolymer made from ethylene propylene diene monomer (EPDM) /an ethylene propylene copolymer rubber (EPR).

26. (Currently Amended) A process as claimed in ~~any one of claim~~[[s]] 22 ~~[[to 25]]~~,

wherein said compatibilizer is selected from a group of two different ionomers, styrene-ethylene/butylene-styrene block copolymer(SEBS), styrene-acrylonitrile copolymer (SAN) and polypropylene block copolymer grafted with maleic anhydride (PPBC-g-MAH).

27. (Currently Amended) A process as claimed in ~~any one of claim~~[[s]] 22 [[to 26]], wherein said polypropylene block copolymer is present in an amount of 50 to 95 wt % of said alloy.

28. (Currently Amended) A process as claimed in ~~any one of claim~~[[s]] 22 [[to 27]], wherein said elastomer is present in a concentration range of 5 to 50 wt %.

29. (Currently Amended) A process as claimed in ~~any one of claim~~[[s]] 22 [[to 28]], wherein said compatibilizer is present in an amount of from 5 to 30 wt %.

30. (Currently Amended) A process as claimed in ~~any one of claim~~[[s]] 22 [[to 29]], further including a natural filler.

31. (Original) A process as claimed in claims 30, wherein said filler is selected from the group consisting of mica, talc and calcium carbonate.

32. (Original) A process as claimed in claim 31, wherein said filler is present in the concentration range of from 0-10 wt %.

33. (Currently Amended) A process as claimed in ~~any one of claim~~[[s]] 23 [[to 32]] wherein said extruder temperature is maintain at in the range of 125 to 240°C.

34. (Currently Amended) A process as claimed in ~~any one of claim~~[[s]] 23 [[to 33]] wherein the twin-screw extruder/Buss-co-Isneader is operated with the screws rotating at a speed of 50-100 rpm.

35. (Currently Amended) A process as claimed in ~~any one of claim~~[[s]] 22 [[to 34]] wherein the melt blending is carried out at a residence time of 0.5 to 5.0 min.

36. (Currently Amended) An article of manufacture whenever made of the polyoelfin alloy as claimed in ~~any one of claim~~[[s]] 1 [[to 21]].